

WHAT IS CLAIMED IS:

1. A modular electrical component, comprising:

a base unit having a plurality of first terminal members, and a plurality of second terminal members connectable to conductors in an electrical wiring system;

a mounting strap secured to a rear cover of said base and capable of connecting said base to a junction box in the electrical wiring system; and

a removable electrical device having a plurality of power contacts extending from a rear cover and capable of releasably connecting to said plurality of first terminal members, such that one of said plurality of contacts releasably connects to one of said plurality of said first terminal members.

2. The modular electrical component according to claim 1, wherein said mounting strap has at least one ground terminal connection that extends into said base unit, and wherein said removable electrical device has at least one ground contact extending from said rear cover, said at least one ground contact is capable of being releasably connected to said at least one ground terminal connection.

3. The modular electrical component according to claim 1, wherein said removable electrical device comprises a receptacle.

4. The modular electrical component according to claim 1, wherein said removable electrical device comprises a switch.

5. The modular electrical component according to claim 1, wherein said removable electrical device comprises a circuit interrupting device.

6. The modular electrical component according to claim 5, wherein said circuit interrupting device comprises:

a housing;

a line side conductive path disposed at least partially within said housing and connected to at least one of said plurality of power contacts;

a load side conductive path disposed at least partially within said housing and connected to at least one of said plurality of power contacts;

a circuit interrupting portion disposed at least partially within said housing and configured to break the continuity between said line side and load side conductive paths upon the occurrence of a predetermined condition;

a reset portion disposed at least partially within said housing and configured to make electrical continuity between said line side and said load side conductive paths;
and

7. The modular electrical component according to claim 6 further comprising a reset lockout that prevents the making of electrical continuity between said line side and load side conductive paths if said circuit interrupting portion is non-operational.

8. The modular electrical component according to claim 7 further comprising a trip portion disposed at least partially within said housing and configured to break the

continuity between said line side and load side conductive paths independently of said circuit interrupting portion operation.

9. The modular electrical component according to claim 7, wherein said circuit interrupting portion comprises sensing circuitry used to sense the occurrence of said predetermined condition, and wherein said reset portion comprises:

a reset button operatively coupled to said reset lockout; and

a reset contact electrically connected to said sensing circuitry, such that depression of said reset button causes one of said line side or load side conductive path to contact said reset contact and activate said circuit interrupting portion to break the continuity between said line side and load side conductive paths upon the occurrence of a predetermined condition.

10. The modular electrical component according to claim 6, wherein said circuit interrupting device comprises a GFCI receptacle, and wherein said predefined condition comprises a ground fault.

11. The modular electrical component according to claim 6, wherein said circuit interrupting portion includes a circuit interrupter used to facilitate making and breaking of electrical continuity between said line side and load side conductive paths, and sensing circuitry used to sense the occurrence of said predetermined condition.

12. The modular electrical component according to claim 1, wherein said base unit is configured to fit within a single gang junction box in the electrical wiring system.

13. The modular electrical component according to claim 1, wherein said base unit is configured to fit within a multiple gang junction box in the electrical wiring system.

14. A modular electrical component, comprising:

a removable electrical device having a plurality of power contacts extending from a rear cover of said removable electrical device;

a base unit configured to fit within a junction box of an electrical wiring system, said base unit having a plurality of terminal connections, wherein each terminal connection is connectable to at least one conductor in the electrical wiring system and to at least one of said power contacts; and

a mounting strap secured to a rear cover of said base unit and capable of connecting said base unit to the junction box in the electrical wiring system.

15. The modular electrical component according to claim 14, wherein said mounting strap has at least one ground terminal connection that extends into said base unit, and wherein said removable electrical device has at least one ground contact extending from said rear cover, said at least one ground contact is capable of being releasably connected to said at least one ground terminal connection.

16. The modular electrical component according to claim 14, wherein said removable electrical device comprises a receptacle.

17. The modular electrical component according to claim 14, wherein said removable electrical device comprises a switch.

18. The modular electrical component according to claim 14, wherein said removable electrical device comprises a circuit interrupting device.

19. The modular electrical component according to claim 18, wherein said circuit interrupting device comprises:

a housing;

a first electrical conductive path disposed at least partially within said housing and connected to at least one of said plurality of power contacts;

a second electrical conductive path disposed at least partially within said housing and connected to at least one of said plurality of power contacts;

a circuit interrupting portion disposed at least partially within said housing and configured to break the continuity between said first and second conductive paths upon the occurrence of a predetermined condition; and

a reset portion disposed at least partially within said housing and configured to make electrical continuity between the first and second conductive paths.

20. The modular electrical component according to claim 19 further comprising a reset lockout portion that prevents the making of electrical continuity

between said first and second conductive paths if said circuit interrupting portion is non-operational.

21. The modular electrical component according to claim 20 further comprising a trip portion disposed at least partially within said housing and configured to break the continuity between said first and second conductive paths independently of said circuit interrupting portion operation.

22. The modular electrical component according to claim 19, wherein said circuit interrupting portion includes a circuit interrupter used to facilitate making and breaking of electrical continuity between said first and second electrical conductive paths, and sensing circuitry used to sense the occurrence of said predetermined condition.

23. The modular electrical component according to claim 14, wherein said circuit interrupting device comprises a GFCI receptacle and said predefined condition comprises a ground fault.

24. The modular electrical component according to claim 14, wherein each of said terminal connections comprise:

a first terminal member connectable to one of said plurality of contacts extending from said rear of said removable electrical device; and

a second terminal member connectable to at least one conductor in the electrical wiring system.

25. A modular electrical component, comprising:

a removable electrical device having a plurality of power contacts extending from a rear cover of said removable electrical device;

connecting means configured to fit within a junction box of an electrical wiring system for connecting said plurality of power contacts to at least one conductor in the electrical wiring system; and

mounting means associated with said connecting means for mounting said connecting means to the junction box in the electrical wiring system.

26. The modular electrical component according to claim 25, wherein said removable electrical device has at least one ground contact extending from said rear cover, and wherein said mounting means includes means for connecting said at least one ground contact to a ground of said electrical wiring system.

27. The modular electrical component according to claim 25, wherein said removable electrical device comprises a receptacle.

28. The modular electrical component according to claim 25, wherein said removable electrical device comprises a switch.

29. The modular electrical component according to claim 25, wherein said removable electrical device comprises a circuit interrupting device.

30. The modular electrical component according to claim 29, wherein said circuit interrupting device comprises:

a housing;

means associated with said plurality of power contacts for conducting electricity between a line side and a load side of said circuit interrupting device;

circuit interrupting means for breaking continuity between said line side and said load side of said circuit interrupting device upon the occurrence of a predetermined condition; and

reset means for reestablishing electrical continuity between said line side and said load side of said circuit interrupting device.

31. The modular electrical component according to claim 30 further comprising reset lockout means for preventing said reset means from reestablishing electrical continuity between said line side and said load side of said circuit interrupting device when said circuit interrupting portion is non-operational.

32. The modular electrical component according to claim 31 further comprising trip means for breaking continuity between said line side and said load side of said circuit interrupting device independently of the operation of said circuit interrupting means.

33. The modular electrical component according to claim 30, wherein said circuit interrupting device comprises a GFCI receptacle and said predetermined condition comprises a ground fault.

34. The modular electrical component according to claim 30, wherein said circuit interrupting means comprises a circuit interrupter used to facilitate making and breaking of electrical continuity between said line side and said load side of said circuit interrupting device, and sensing circuitry used to sense the occurrence of said predetermined condition.

35. The modular electrical component according to claim 25, wherein said connecting means comprises a plurality of terminal connections, each terminal connection having:

a first terminal member connectable to one of said plurality of contacts extending from said rear of said removable electrical device; and

a second terminal member connectable to at least one conductor in the electrical wiring system.